ENVIRONMENTAL CHEMISTS

Date of Report: December 11, 1996 Date Received: December 5, 1996 Project: Metro Grab, PO #M55440

Date Samples Extracted: December 9, 1996 Date Extracts Analyzed: December 9, 1996

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID		Chromium	<u>Copper</u>	<u>Nickel</u>	Zinc Zinc
M55440		0.51	0.85	0.73	0.22
San National Action					
Method Blan	ık	< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: December 11, 1996 Date Received: December 5, 1996 Project: Metro Grab, PO #M55440

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 74438 (Duplicate)

×		- Piga Britis e	일본자의 어린 활동이 되었다.		Relative	
		Reporting	Sample	Duplicate	Percent	Acceptance
	Analyte:	Units	Result	Result	Difference	Criteria
	Chromiun	n mg/L (ppm)	0.51	0.49	4	0-20
	Copper	mg/L (ppm)	0.85	0.79	7	0-20
	Nickel	mg/L (ppm)	0.73	0.71	3	0-20
	Zinc	mg/L (ppm)	0.22	0.21	5a	0-20
			Assistant and the constitution			

Laboratory Code: 74438 (Matrix Spike)

		a 1	a .	0.7			Relative
Analyte:	Reporting Units	Spike Level	Sample Result	MS	Recovery MSD	Acceptance Criteria	Percent Difference
Chromium	mg/L (ppm)	5	0.51	93	90	80-120	3
Copper	mg/L (ppm)	5	0.85	91	93	80-120	2
Nickel	mg/L (ppm)	10	0.73	93	88	80-120	6
Zinc	mg/L (ppm)	5	0.22	96	92	80-120	4

Laboratory Code: Spike Blank

	Reporting	Spike	% Re	covery	Acceptanc	Relative e Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
				v. aVa		
Chromium	mg/L (ppm)	5	92	92	80-120	0
Copper	mg/L (ppm)	5	94	96	80-120	2
Nickel	mg/L (ppm)	10	89	96	80-120	8
Zinc	mg/L (ppm)	5	90	95	80-120	5
Nickel	mg/L (ppm)	A CONTRACT OF THE PERSON OF TH	89	96	80-120	8 5

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

KJ BI 112.05.96

SAMPLE CHAIN OF CUSTODY

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Send Report To: Company Alaska	N Cappen	Lionks		Contac	e GER	PACID A.	Thansar	
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12/04/96

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

December 11, 1996

INVOICE # 96ACU1211-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Grab, PO #M55440: Results of testing requested by Gerry Thompson, Project Manager for material submitted on December 5, 1996.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

December 11, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 5, 1996 from your Metro Grab, PO #M55440 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

keh

Enclosures ACU1211R.DOC